CLAIMS

1. A microarray comprising a surface to which are bound a plurality of reactive groups, in which an analyte is immobilised on the surface via direct binding to one or more of the reactive groups or via indirect binding via a linking moiety to one or more of the reactive groups, and in which the surface coverage of the analyte within at least one discrete given area of the surface is less than about 20%.

2. A microarray according to Claim 1, in which the number of immobilised analyte molecules within the at least one given area is fewer than about 300 per micrometre squared, for example fewer than about 275 per micrometre squared, fewer than about 250 per micrometre squared, fewer than about 225 per micrometre squared, fewer than about 200 per micrometre squared, fewer than about 175 per micrometre squared, fewer than about 150 per micrometre squared, fewer than about 125 per micrometre squared, fewer than about 100 per micrometre squared, fewer than about 75 per micrometre squared, fewer than about 50 per micrometre squared, fewer than about 25 per micrometre squared, fewer than about 20 per micrometre squared, fewer than about 15 per micrometre squared, fewer than about 10 per micrometre squared or fewer than about 5 per micrometre squared.

3. A microarray according to Claim 1 or 2, in which the analyte is immobilised on the surface via indirect binding to one or more of the reactive groups via a linking moiety.

4. A microarray according to Claim 1, 2 or 3, in which the analyte comprises a tag which permits immobilisation of the analyte on the surface, in which the tag which permits immobilisation of the analyte on the surface comprises a biotin carboxyl carrier protein (BCCP) motif or an Avi-tag (SEQ ID NO: 1).

5. A microarray according to any preceding claim, in which the linking moiety is a biotin-binding molecule and the analyte is biotinylated.

6. A microarray according to Claim 5, in which the biotin-binding molecule is selected from the group consisting of (i) an anti-biotin antibody; (ii) avidin; (iii) neutravidin; (iv) streptavidin, or (iii) a fragment, variant or analogue of streptavidin, avidin, neutravidin or the anti-biotin antibody which retains biotin-binding capability.

7. A microarray according to Claim 5 or 6, in which the microarray comprises multiple binding sites for biotin via the biotin-binding molecules, and in which a portion of the biotin

binding sites are not bound to biotinylated analyte, and in which the biotin binding sites that are not bound to biotinylated analyte are bound to free biotin.

8. A microarray according to any preceding claim, in which the reactive groups are bound to the surface via a hydrophilic organic polymer, for example, a hydrophilic organic polymer selected from the group consisting of polyacrylamide, polyurethane, polyethyleneimine and polyethylene glycol, preferably polyethylene glycol, preferably polyethylene glycol which has an average molecular weight in the range 500 to 20000.

9. A method of manufacturing a microarray comprising the steps of: (i) providing a surface to which are bound a plurality of reactive groups; (ii) contacting the reactive groups with a linking moiety comprising a biotin-binding molecule under conditions whereby the linking moiety reacts with one or more reactive groups which is able to react, resulting in the binding of the linking moiety to the surface; (iii) depositing a sample of a biotinylated analyte on the surface such that the analyte is immobilised on the surface via indirect binding via the linking moiety to a reactive group; and thereafter (iv) applying a solution of biotin to the surface of the microarray.

10. A method of manufacturing a microarray comprising the steps of: (i) providing a surface to which are bound a plurality of reactive groups; (ii) contacting the reactive groups with a solution of a linking moiety in which the concentration of the linking moiety in the solution is less than 1 mg/ml and whereby the linking moiety reacts with one or more reactive groups which is able to react, resulting in the binding of the linking moiety to the surface.

11. A method according to Claim 10, in which the method comprises a further step (iii) of depositing a sample of an analyte on the surface such that the analyte is immobilised on the surface via indirect binding via the linking moiety to the one or more reactive groups.

12. A method according to Claim 9, 10 or 11, in which the linking moiety is as defined in Claim 5 or 6.

13. A method according to any of Claims 9 to 12, in which the analyte is as defined in Claim 3 or 4.

14. A method according to any of Claims 9 to 13, in which the analyte comprises a biotin carboxyl carrier protein (BCCP) motif or an Avi-tag (SEQ ID NO: 1).

15. A method according to any of Claims 11 to 14, in which the method comprises a further step (iv) of applying a solution of a blocking agent, for example biotin, to the surface of the microarray.